

A GEOLOGICAL SURVEY: THE BEST INVESTMENT, AN ROI, FOR ECONOMIC DEVELOPMENT THAT A STATE CAN MAKE

State Geological Surveys do the applied research and mapping that leads to development and responsible management of mineral, energy and construction resources; protection of water resources; and reduction of loss of life and property from geological hazards, environmental cleanups and land development.

Data about these resources is critical to land-use planners and developers because every project needs to use water, avoid natural hazards and safely dispose of waste.

The goal of the Michigan Geological Survey is to implement an applied research program that will lead to tangible economic benefits for the citizens of Michigan and businesses throughout the Midwest.

Examples of the Economic Value Created by Geological Survey Research and Data:

- A 1979 Michigan Geological Survey study directly led to the discovery and development of the Kennecott Eagle mine in the Upper Peninsula. That project will create 500 construction jobs and 200 operation jobs and will contribute \$25-50 million to the Michigan Natural Resources Trust Fund (MNRTF) and more than \$100 million in state and local taxes.
- An economic study of the value of geologic mapping in Kentucky showed a \$25-30 benefit for every dollar spent on the mapping.
- A new economic study conducted for the Ohio Geological Survey concludes that Survey data and research have an annual economic benefit to the state of a minimum of \$575 million.
- One of the greatest needs of the Michigan Aggregates industry is to identify aggregate resources that can be reserved and accessed for future needs. Geologic mapping is essential to that purpose.
- The current production value of aggregates and minerals in Michigan exceeds \$2 billion per year and has grown at 6% per year for the past decade. Those resources include sand and gravel, crushed stone, gypsum, iron ore, clay, limestone and cement. Michigan's aggregates industry produced 81 million tons in 2010 and employs 9000 people with wages 34% higher than the average for all industries.
- Since 1925, Michigan's oil and gas production has had a cumulative well head value of over \$35 billion. Oil and Gas well head values averaged over \$1 Billion every year for the past 30 years. Royalties and lease payments from State-owned lands fund the Michigan Natural Resources Trust Fund (MNRTF). This Fund has invested more than \$800 million to buy and develop State parks and recreation areas and currently has nearly \$500 million in funds. Private mineral owners received over \$140 million in royalties in 2010 alone. Over 8000 people are directly employed in the development and production of Oil and Gas in Michigan. Oil and Gas production generates about \$80 million in State taxes and fees yearly. MGRRE (Michigan Geological Repository for Research and Education—now part of the Michigan Geological Survey) has worked with the oil and gas industry for 30 years to provide data and insight into new developments.
- The combined annual production value of Michigan's minerals and oil and gas industries exceeds \$3 billion.

All this economic development has occurred even though maps and assessments of Michigan's natural resources have not been updated in decades. Neighboring states have already invested millions updating their data and mapping, yielding exponentially increased economic value of all the natural resources, including water.

The Michigan Geological Survey will produce current, accessible data about Michigan's natural resources. The economic impact of this work is without a doubt enormous.